

**TWENTY-EIGHT MEETING OF THE STANDING COMMITTEE
OF CARIBBEAN STATISTICIANS**

**ST. LUCIA STATISTICS DEPARTMENT
PROGRESS AND PLANS**

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**November 22nd to November 26th 2004
Bermuda**

PROGRESS AND PLANS FOR THE DEPARTMENT OF STATISTICS OF ST. LUCIA

During the past year a number of activities occurred which will form the basis for the further advancement of the Statistical Department in St. Lucia. This paper presents firstly, the changes that occurred over the past year and delineates the plans to be pursued for the rest of this year and the next year.

CHANGES IN STAFF STRUCTURE AND OFFICE INFRASTRUCTURE

Staffing:

During the past year, the office underwent a number of changes related to the staffing structure which will have an impact on its functioning over the next few years. The senior staff member who retired a two and a half years ago has still not been replaced in terms of her substantive role, however, we have made an appointment of in her place of a Statistician with a degree in GIS with responsibility for mapping. During the course of the year one person left the department to pursue a degree in public relations (I believe we have lost a really good member of staff but people must move on and we tried our best to facilitate her). Another member of staff continues to work with the Ministry of Health where he is engaged in the health statistics unit in a temporary arrangement with the Statistical Department. The department is no longer seeking to replace the senior staff member since internally we have now appointed a Statistical Assistant III to head the surveys section giving him full responsibility for operational aspects of the sample survey work which we do within the department. During the course of year the Statistical Office funded the post of two senior data collection persons specifically to facilitate the completion of the national accounts survey. One of these persons proved to be so efficient in the execution of her duties the department through various means has tried to retain her services. These efforts has resulting in our ability to grant her a temporary position on staff and we believe her presence will give a significant boost to our efforts at data collection in this section of the department. It is our belief that where persons make special and determined efforts to assist us in our operations we must be prepared through whatever means is available to promote their interest, even when they may have significant problems getting into the civil service due to the entry requirements.

Geographic Information Systems:

The Statistical assistant who left to pursue a degree in GIS at Kingston University joined us and as indicated previously has been appointed to the post of Statistician I. During the last four months he has been able to complete the work on the geographic delineation of all communities which hitherto were only notionally understood by persons living in those communities. Basically using the census enumerator maps where the Lat/Long coordinates of each building and the name of the community were plotted to the building on the digital map, the most commonly used name which residents used to refer to their community was used along with major landmarks to identify geographically the community. This community map will facilitate greatly project implementation plans at the community level and is already the backbone for the government's implementation of a national addressing system via a house numbering and street naming project. We have active participation on that committee where we contribute our community maps amongst lots of other GIS support maps. Another important activity which we undertook during the course of the year was the development of a poverty index based on the basic needs approach for all communities. This allowed the ranking of the communities on the basis of this index and provides guidance to projects and programmes designed to alleviate poverty in the targeting of their technical assistance. This was perhaps the single most important output from the Census. Mapped data increases the utility of the census data which already is fully GIS enabled with all buildings mapped to entries on the

visitation record which has already and is ready to accept more variables from the census questionnaire at the building and the Enumeration District level. Our new GIS Statistician will is now based on his studies able to provide us with the human resource capability we need to put to full use the GIS datasets we are now amassing especially with regard to census 2001. We are under a European Union Project to deploy the Redatam webserver for the dissemination of the census results going to be upgrading our GIS software from Arcview 9.0 to ArcEditor 9.0, with the intension to eventually upgrade to ArcInfo 9.0. This project has dragged on substantially more than we had anticipated due to EU project conditions. This will substantially increase our ability to manipulate, maintain, model census and survey data using modern Geographic Information System techniques. Some of these GIS census data models are already expressed in various census data models implemented by the software developers at ESRI (Environmental Systems Research Institute).

Census:

We will be receiving from the EU funding for the Redatam Census database project along with a census data analysis project. The first of these two projects will allow the creation of an online queryable Redatam Database for dissemination of the census 2001 results through our web site, the second will assist us in recruiting a consultant for the completion of an analysis of the census results. A prototype of the website is already running on the 1991 census available on our website at www.stats.gov.lc. This project will fund new computers and our planned move to ARC Editor 9.0 in the near future. This project has been delayed for various reasons related primarily to the slow pace at which EU funding can be drawn down and the heavy process which has to be completed before funds under the project can be disbursed.

Hardware and software infrastructure:

We had always envisaged the census as an opportunity to enhance our infrastructural and technological capability. To this end the census allowed the possibility of justifying expenditure on a state of the art document centre the Xerox 440st which is a fully networkable, fax, copier, printer which is linked directly into our network. Along with this we also acquired a high end network solid ink wax color printer which is well suited to the production of publications and maps requiring good quality color printing, as is the case with the environmental statistics report and maps especially satellite imagery maps. In collaboration with the Government of Martinique the Land and Surveys Department of the Ministry of Planning recently acquired a new set of Satellite imagery which we will be using in updating all our ED maps. The imagery was acquired approximately one year ago and will allow us to enhance the topographic shape files we currently hold of the Island. We have re-designed the labour force survey into a quarterly survey and have re-designed all of our questionnaires into TELEform templates suitable for scanning we can readily print our own questionnaires and use our Fujitsu document scanners acquired during the census to capture all of our sample survey data. The Document Center will also give us the capability to publish a small number of copies of publications which we have been unable to publish through the government printery.

As I make this presentation we are now work on a CWIQ Survey we have been working on in association with the World Bank and the UNDP, the data capture for the CWIQ survey was done by the use of our image scanning facilities, in fact, we believe that the reason St. Lucia was chosen as the pilot site for the conduct of the CWIQ survey was due to our establish image scanning and forms processing hardware and software infrastructure.

Employing the Fujitsu Scanners in combination with TELEform were able to process the CWIQ in much the same way as we process our other surveys far more quickly. The additional benefits which the introduction of TELEform for forms processing has allowed include, the possibility of pre-filling or merging data unto forms for surveys where our client base is well known to us and we want to present data to the client for correction or identification. We have had a very successful experience strengthening the

national insurance scheme data on occupation by merging address and employee identification information into a form designed to capture this information.

Through the conduct of the CWIQ survey UNDP agreed to upgrade our version of TeleForm from V8.0 to V9.0 in addition, we moved our arrangement for the software onto full maintenance so that we can receive all updates, upgrades free of charge on this new maintenance plan. During the course of this year the office also upgraded its internet hosting plan from a provider in Canada to one in the US. This move allowed us to more than double the web storage space available to us and increase from 30 to 150 the number of email accounts we can make use of, we have therefore assigned email accounts with the domain name stats.gov.lc to almost all members of the staff ensuring that we have a consistent public image as expressed through our email addresses.

The office has also introduced software called LiquidOffice, an n-tier forms centric document management software to assist in our transition from the use of paper forms to public facing forms accessible over the internet/intranet. Liquid office allows us to publish in PDF or HTML public facing forms respecting WC3 Xform standards to our Intranet within a controlled server environment. All forms published in PDF or HTML using liquid office retain validation and consistency checks based on javascript which accompanies the product. Since LiquidOffice sits on SQL Server 2000 all records collected through the public facing forms are eventually routed to a table in SQL Server, with SQL server in the background we are also able to link code tables via lookup features built into the LiquidOffice designer to fields on the form. Liquidoffice not only allows us to maintain our online version of forms but also allows for scanned documents to be routed to specific members of staff or to the general staff as the case may be. This is a very effective means of collaboration and information sharing. We intend to make SQL Server 2000 the main vehicle by which we store and retrieve databases in the statistical office in the not to distant future, especially because of the secure way in which it stores, backs up and maintains data.

TRAINING

The Department of Statistics has been quite active in this area over the past year; this activity is expected to continue throughout the up coming year unabated.

During the course of the year the department participated in a number of online and face to face seminars sponsored by the ILO, this provided us with the possibility to train two of our statisticians in firstly the development of productivity indicators and secondly, the design of samples for establishment surveys. The training in the development of productivity indicators will bring a whole new dimension to the use of national accounts and Labour Force statistics which can provide some powerful insights into the operation of the economy of St. Lucia. The development of establishment survey samples is especially useful not only to the survey of earnings, employment and hours of work but also to national accounts, Balance of payments and other establishment based surveys we conduct from time to time.

During the month of September a regional training workshop was conducted by Mr Romesh Paul of the Eurostat, this workshop proved to be very useful to the St. Lucia statistics office. We took the opportunity to train several members of our staff, approximately six persons received training in System administration and design, in management of code tables and tables of nomenclatures and in the use of the ComExt browser to allow for the dissemination of Trade Statistics. We have begun to implement this new version of Eurotrace at our office; this will be discussed later in this paper.

Ione Marshall visited the St. Lucia Statistics Department and evaluated our capacity to implement the SNA '93. We reviewed her recommendations and benefited a good deal from her experience. We expect that she will be back very soon to assist us in the final implementation of the SNA '93.

Since the retirement of Mrs. Joan Charles we had a vacuum in the technical expertise of the statisticians to compile balance of payments statistics. With the assistance of CARTAC we trained two persons from our

office in the compilation of Balance of Payments statistics, they are now much more able to assist with the annual ECCB balance of payments compilation exercise due to their attendance of this course.

During the course of this year the department completed the assistance to one member of staff obtain certified training from the University of the West Indies in GIS, based on an outreach course developed by Dr Jacob Opadeyi. This course covered all the fundamental GIS principles, in addition, as part of the work programme for the course participants were required to complete a course project. In the case of our participant she completed a project designed eventually to create a census Atlas for St. Lucia. All of this was done in addition to the ESRI certification training in the following two courses completed with the assistance of IDAS/GeoCaribe, a certified ESRI training company out of Florida:

- 1) Migrating from Arcview 3.2 to ArcGIS 8.1
- 2) Fundamentals of ArcGIS 8.1

In September 2004 the department facilitated the attendance of two members of staff to the regional GIS conference held in Barbados. For this regional conference, name URISA Caribbean

The abstract distribution by track was as follows:

1. Environment and Natural Resources (25 abstracts submitted)
2. Policy and Management (25 abstracts submitted)
3. Disaster Management, Law Enforcement and Public Health (13 abstracts submitted)
4. Utilities, Transportation and Business Applications (13 abstracts submitted)
5. Education (8 abstracts submitted)
6. Other/Hot Topics (12 abstracts submitted)

This covered many of the most popular areas which GIS applications cover.

TRADE STATISTICS

The trade section of the Statistical Department continues to maintain a lag in trade processing of no more than one month. We were able to provide data to all critical data users in St. Lucia by the end of January 2004 for the year 2003 for all classes of data on imports.

The statistical department publishes data in HS 96, HS 93, SITC rev 3, BEC, ISIC, CPC 1.0 formats. These additional nomenclatures have been made possible due to the installation of correlation tables obtained from the UN between the HS93 and the respective nomenclatures. The BEC trade classification in particular has assisted us immensely in publishing data on trade and trade indices in particular for the use of economist in a more meaningful manner.

The department has abandoned the implementation of the trade indices module of EUROTRACE. This has been replaced by a quarterly trade indices survey which we have established with the assistance of CARTAC (Caribbean Regional Technical Assistance Center) working closely with a consultant from the Statistical Office of the IMF, Mr. John Sungren. The structure of these new indices will be based on the Balance of Payments (BOP), external trade and tourism data, while the price data for the indices primarily were to be obtained through direct price surveys. It was decided to rely on direct price surveys because of the serious shortcomings detected in the unit value data derived from external trade values and volumes. The main difficulty with a sample survey based approach of this nature is the possibility of non-response, where this occurs we have used detailed data available from Customs Warrants as a substitute source. We realize that this approach will have a number of benefits primarily for the purpose of national accounts deflation and terms of trade analysis. The economy of St. Lucia is heavily dependant on the international price developments for its major exports (bananas and tourist services) and the imports needed to produce them and products consumed locally. In addition, the use of this approach also has as a central focus import and export price indices of services generally but tourism services in particular, sold on the international

markets and that this represents a significant advantage over the goods centric approach which the development of import and export price indices directly from the goods trade involved in the past.

The department has been absorbing electronic data from ASCUYDA since the entire customs function is now fully computerized. This is what allowed us to produce data for 2002 and 2003 for some of our users on imports by the end of January 2003 and 2004 respectively. The data on exports is now less problematic since we enter it directly at the office so that the non availability of this information in the Customs electronic file is not a problem. We have entered customs data into EUROTRACE and prior to that into a mainframe AS400 system from the time the department started producing trade data, this system at best produces all data on imports, exports and re-exports with a lag of about three months. We have by using both sources to compile trade data now been able to examine the deficiencies in the ASYCUDA data and have put in place a system to correct its problems. This has now allowed us to discontinue the manual re-entering of all data which was used to obtain information on trade. Members of staff have now been relocated to duties in support of the work in the national accounts and surveys section of the department and significantly to deal with the quarterly import and export prices surveys to which I referred previously. In addition staff duties in the trade section of the department are now being re-oriented to focus more on consistency checking, generation of trade indices or more generally on adding value to the trade data rather than performing the more routine and repetitive task.

Since the conduct of the Eurotrace/ComExt training workshop we have deployed the Windows version of Eurotrace on our network. On the Server we have placed all the core files and referenced these files from the all the clients. We have the DBMS client part of the EUROTRACE for Windows software running in the Director's Office and also in the trade section of the office. The editor client is running on at least three machines within the Trade section of the Department. And the ComExt data dissemination portion is running on all machines including those of the statisticians, where they are able to reference all of the databases available for dissemination. We used the software to design our own local Customs/CARISAD form. We also have so far loaded all the information we have on a monthly basis from 2000 to the present. The intention is to load all years dating back to 1992.

SURVEYS

The Statistical Department has been very active in this area this year, much more so than usual due to the demands emanating from the public sector, our own internal sample survey programme and greater collaboration which we have developed with the National Insurance Cooperation (NIC). We have successfully completed a number of surveys during the year and the reports for all of these surveys are available for use, the following is a list of the surveys performed which are not part of the on-going survey programme of the Statistical Department.

Name of Survey	Date Survey was Taken	Name Of Published Report
National Insurance Survey of all establishments	January 2004	Data used to update occupations information collected by the NIS
CWIQ (Core Welfare Indicator Questionnaire) Survey	October 2004	Report produced by the national insurance scheme
National Insurance Scheme Survey of Fishers and ex banana farmers	March 2004	Report produced by the national insurance scheme in collaboration with a Statistician within the Statistical office
Rodents Survey	November 2004	Results of this survey are yet to be published. This survey

		will be taken before and after a rat eradication programme
Cricket 2007 Assessment Survey	April 2004	Report Submitted in St. Lucia's Bid Book
National Lottery's Authority Games	September 2004	Report not completed on the assessment of the games

In addition to this the Department continued some of its normal survey programme consisting at its core of the Labour Force Survey. This survey has resumed on a quarterly basis, although the sample size has not increased. The sample frame from which this survey is drawn has been re-designed completely based on the Census 2001 data and to reflect the new occupational stratification inherent in the Census 2001 data. As of the present almost all of the TELEform based processing systems have been redesigned and I believe we have a truly efficient system producing with less than one month of lag, regular data on the Labour Force which has been published up to the first two quarters of 2004. The strategy change to producing quarterly data allows for more frequent and meaningful publication of results, in addition, we have added an ICT module to this survey which will allow the constant monitoring of internet, cellular and other important high growth areas in information, communication technology. We also intend to use this additional module to capture on occasions some household based living conditions indicators, such, number of rooms, number of bedrooms, appliances within the home etc.. The balance of payments surveys overall response rate improved substantially from 65% to 78% in 2004. This was largely due the joint data gathering effort which we mounted with the ECCB. We are now in the process of putting in place a better coordinated effort in the area of the national accounts survey to better support the implementation of SNA '93. There is a plan with the assistance of CARTAC to put in place a new HBS survey since the work done on the 98 HBS was fundamentally flawed.

An important development in this area has been our collaboration with the national insurance scheme. We have been able to obtain from the scheme its establishment registers which we use to update our own register not only with up to date address information, but also up to date employment data on a firm by firm basis. This makes the process of sample selection of establishments for the national accounts, the wages survey and other establishment type surveys much more precise and effective. We have also collaborated with the NIC (National Insurance Cooperation) to pre-fill their employee/establishment database using TELEform's Automerge publisher into some forms we designed in TELEform designer. This will allow us to make a collaborative effort to upgrade the data on occupations within the NIC's data source and improve its relevance as a source of very accurate information on wages and salaries by occupation. This joint effort between the Statistics Office and the NIC was completed early this year with enumerators going into the field with forms pre-filled with employee names and NIC numbers for each firm based on the firm's name and NIC number. We are very excited by the possibilities this collaboration has opened up for us.

NATIONAL ACCOUNTS

Efforts in the implementation of SNA 93 continue with continued training and the support of CARTAC which was previously mentioned. We have re-designed all of our national accounts questionnaires into one single National Account TELEform questionnaire and we have had a quite successful National Accounts Data Collection exercise. To date we have questionnaires completed for 85% of the sampled establishments over 19 employees in size and over 75% of the smaller establishment. This was a significant feat for us; we hired two senior data collection people which proved to be very helpful in our data collection efforts. We now await Ms Marshall's second visit at which time we hope to make significant progress with the SNA'93 National Accounts System implementation. Our efforts so far have been reviewed by Ms Marshall, the next visit we hope will therefore be of a more practical and operational nature intended to actually complete at least some aspects of the supply and use table. We are also constantly updating our establishment register; we are in the second phase of this with the collaboration with have with the national insurance cooperation. Given that the first phase of updating employment

numbers at the enterprise level was completed using the Census 2001 visitation records we have a fairly up to date establishment register upon which we can develop our core commodities and services for use in the supply and use tables to be developed in the course of implementing SNA '93. NIC data is also incorporated in our establishment register, this is an extremely important input. Since national insurance payments are based on a good register the NIC regularly updates this information and we benefit by this collaboration in having a constantly updated establishment register.

Demography and Social Statistics

This section of the Department monitors the vital registration system of St. Lucia and publishes this information annually in a publication entitled *The St. Lucia Vital Statistics Report*. This report covers information on teenage pregnancy, mortality, population growth and population projections, births, deaths etc. Much of this information is collected on an on-going basis by district and can therefore be desegregated in that way for more detail where necessary.

Environmental Statistics:

As you know already we released about two years ago a report entitled "A Compendium of Environmental Statistics 2001" which we had been working on in collaboration with the sustainable development unit of the Ministry of Planning, Environment and Housing. This work was initiated by the UNSD and the Statistics department with the assistance of Professor Polfelt, this project has been instrumental in ensuring that we now have the capacity to produce the environmental publication on a regular basis. By the end of this month we will be publishing the 2003/2004 version of the compendium. While we are committed to having this publication constantly updated, our commitment is not now shared the environmental unit of the Ministry of Planning, since for this publication there was very little assistance rendered by that group to our efforts to have this publication ready by the end of this month. However, it is our intention as stated in the past to constantly update this publication and we intend to make further attempts at working closely with the environmental unit of the Ministry of Planning and the large number of agencies with whom we have collaborated with in the past. Due to financial constraints we were unable to print the large number of colored copies of the first publication, which ought to have been made available. With this new publication as we have in the past we will prepare a PDF (Portable Document Format) of the publication which will be readily available from our Website by early December 2004.